Before the FEDERAL COMMUNICATIONS COMMISSION Washington, DC 20554

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In the Matter of)	
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Implementation of the Local Competition)	CC Docket No. 96-98
Provisions of the Telecommunications Act)	
of 1996)	
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COMMENTS OF COVAD COMMUNICATIONS COMPANY TO SECOND FURTHER NOTICE OF PROPOSED RULEMAKING

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TABLE OF CONTENTS

SUM	MARY	••••••	Error! Bookmark not defined.			
I.	THE NEED FOR MINIMUM NATIONAL UNBUNDLING STANDARDS Error! Bookmark not defined.					
	A.	Natio	nal Rules Will Promote Entry Error! Bookmark not defined.			
	B.	State	s Should Not Be Permitted To Give ILECs UNE ExemptionsError! Bookmark not			
II.			DARD AND PROCESS FOR IDENTIFYING ED ELEMENTS UNDER SECTION 252(d)(2) Error! Bookmark not defined.			
	A.	The Substantive Standard For Identifying UNEs Under Section 251(d)(2)				
		1.	The Necessary And Impair Considerations Error! Bookmark not defined.			
			a. The "Necessary" Consideration With Regard To Proprietary Elements Error! Bookmark not defined.			
			b. The "Impair" Consideration Error! Bookmark not defined.			
		2.	Competitive Market Analysis Error! Bookmark not defined.			
		3.	Relevance Of The Essential Facilities Doctrine Error! Bookmark not defined.			
		4.	Consideration Of Other Factors Error! Bookmark not defined.			
	В.		edural Aspects For "UNE Identification" And "UNE nption" Proceedings Error! Bookmark not defined.			
III.	SPEC	CIFIC U	JNBUNDLING REQUIREMENTS Error! Bookmark not defined.			
	A.	xDSI	L-Conditioned Local Loops Error! Bookmark not defined.			
		1.	Unbundled Loops Clearly Meet The UNE-Identification Test Error! Bookmark not defined.			
		2.	Unbundled Loop Rules Error! Bookmark not defined.			
			a. Universal Availability Of Conditioned Loops			

			b.	Unbundling xDSL Loops Over Remote Terminals Error! Bookmark not defined.
			c.	The National Loop-is-a-Loop Pricing PrincipleError! Bookmark not defined.
			d.	Installation Intervals Error! Bookmark not defined.
	B.	Dedic	cated In	teroffice Transport Error! Bookmark not defined.
		1.	The N	Necessary And Impair Considerations Error! Bookmark not defined.
		2.	Other	Considerations Error! Bookmark not defined.
	C.	DS3	Custom	er Links Error! Bookmark not defined.
		1.	Neces	ssary And Impair Considerations Error! Bookmark not defined.
		2.	Other	Considerations Error! Bookmark not defined.
	D.	Avail	ability	of Related OSS Error! Bookmark not defined.
IV.	CON	CLUSI	ON	Error! Bookmark not defined.

SUMMARY

The Commission should take advantage of the opportunity granted by the Supreme Court's remand to define unbundled network element rules in a manner that will best promote Congressional intent by facilitating the rapid deployment of competitive telecommunications services such as xDSL. Covad is in the midst of an extensive, nationwide xDSL network build-out that relies upon the availability of unbundled DSL-conditioned loops, unbundled dedicated transport, unbundled DS3 links, and related OSS. A clear, predictable set of national unbundling rules is essential for this deployment and the deployment of similar networks by other CLECs.

In drafting its "necessary" and "impair" legal standard, the Commission should be mindful that CLECs offering xDSL services like Covad require minimum national standards in order to present to customers and the investment community a single, unified business plan for providing these services nationwide. Creating an exemption process that would require CLECs to engage in market-by-market or other geographic type analysis so as to continually "re-justify" the availability of those elements would significantly increase legal costs and introduce unnecessary regulatory uncertainty into the process. Needless to say, Covad is much more interested in concentrating on the day-to-day issues of building a network and selling services—not in participating in the *Bleak House* style of litigation in which the ILECs revel.

The Commission's necessary and impair standard must be drafted with an understanding as to why Congress required unbundling in the first place. Most tellingly, Congress ordered that ILECs unbundle their networks because—as a result of their historical government-granted monopoly—those incumbent networks possess economies of scale, scope, density and connectivity that cannot feasibly be replicated by other

providers. If competing carriers are not able to share those economies, the ILECs would have an insurmountable competitive advantage once the local market was opened to competition. ILEC failure to fully unbundle in the three years since the Act—and their strenuous arguments before Congress and this Commission that they need exemptions from unbundling—demonstrates the importance of these facilities.

In order to achieve Congressional intent, Covad proposes a "necessary" and "impair" standard that focuses upon whether alternative facilities share comparable economies of scale, scope and density as the ILEC networks. In examining alternative sources of supply, Covad suggests that the Commission use well-accepted principles of competitive analysis to determine whether there is indeed a competitive wholesale market for the element. This analysis would take into account a number of factors, including the elasticities of demand and supply, the existence of a wholesale market, pricing trends, and market share analysis. Even if this threshold is met, unbundling may still be necessary to advance other objectives of the Act. The statutory requirements of Section 251(d)(2) contemplate Commission consideration of such factors, including the need for consistent national rules and the promotion of competitive broadband services to all Americans.

Covad recognizes that the Commission's unbundling requirements reflect changing market conditions. This goal, however, must be balanced against the need to provide stable and predictable rules that are critical to facilitate new entry into local telecommunications markets. Covad suggests that the biennial regulatory review required by Congress in the 1996 Act is the best forum for the Commission to review its unbundling requirements. The biennial review provides a forum for all state

commissions and the industry to provide unified comments on these issues of national importance.

If the Commission feels the need to establish some kind of market-by-market or element-by-element test, triggered by ILEC exemption petitions, ILECs must bear a substantial burden of production and proof before they obtain any exemption. In addition, the Commission should establish rules in which the ILEC would fully compensate CLECs for CLEC costs incurred in such a proceeding if the final result of that proceeding results in no change to the unbundling rules. Without such a rule, the ILECs will have every incentive to leverage their legal staffs in proceedings that will simply raise the costs of CLECs and other new entrants.

With regard to specific unbundling rules, Covad proposes that the Commission define several unbundled network elements—DSL-conditioned loops, dedicated transport, and DS3 customer links. Unbundled access to OSS related to the provision of these elements also must be required. It is time for ILECs to stop giving the Commission and competitive carriers "excuses" about their failure to provide unbundled DSL-conditioned loops throughout their service territories—not just to the select few that the ILEC chooses to serve. Unbundled DSL-conditioned loops must be made available, regardless of ILEC DSL deployment plans, regardless of the presence of remote terminal devices, and regardless of arbitrary "loop length" restrictions unilaterally imposed by the ILEC. Universal availability of DSL-conditioned loops will clearly promote the provision of broadband services to all Americans.

In these comments, Covad provides a substantial body of evidence supporting its position that these elements meet the unbundling test articulated above. Covad's

proposed rules. In particular, Covad provides a detailed assessment of its dependence on unbundled ILEC dedicated interoffice transport and ILEC DS3 customer links. ILEC dominance of the markets for these services to Covad is overwhelming.

To assist the Commission, Covad is submitting a set of draft rules (Attachment 1).

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COMMENTS OF COVAD COMMUNICATIONS COMPANY TO SECOND FURTHER NOTICE OF PROPOSED RULEMAKING

This proceeding presents the Commission with a significant opportunity to accelerate the competitive deployment of advanced xDSL services to American consumers. The Supreme Court's decision in the *Iowa Utilities Board* case affirmed the Commission's primary role in implementing the Telecommunications Act of 1996 (the "1996 Act"). As a result, the Commission can now look back at three years of market experience, build upon the record developed in the *Advanced Wireline Services* proceeding and affirmatively reassert that the unbundling principles of Section 251(c)(3) apply to the advanced networks of the future². In doing so, the Commission will once again ratify Congress's dynamic vision of this industry, which is characterized by rapid technological change and potential innovation.

⁴⁷ C.F.R. § 51.319; Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, First Report and Order, 11 FCC Rcd 15499 (1996) ("First Local Competition Order"), aff'd in part and vacated in part sub nom., Competitive Telecommunications Ass'n v. FCC, 117 F.3d 1068 (8th Cir. 1997), aff'd in part and vacated in part sub nom., Iowa Utils. Bd. v. FCC, 120 F.3d 753 (8th Cir. 1997), rev'd in part and aff'd in part and remanded sub nom., AT&T v. Iowa Utils. Bd.,119 S.Ct. 721 (1999) ("Iowa").

Deployment of Wireline Services Offering Advanced Telecommunications Capability,
Memorandum Opinion and Order and Notice of Proposed Rulemaking, 13 FCC Rcd 24011 (1998) ("First

Covad Communications Company ("Covad") is a start-up telecommunications company focused *entirely* upon deployment of competitive xDSL services nationwide. Covad's planned network deployment by the end of 1999 will cover 51 MSAs, more than 25% of the nation's homes and businesses. Covad's service is already available to well over 11 million homes and business.³ This is a large-scale, national roll-out, based upon the nationwide availability of collocation, unbundled dedicated transport, and unbundled local loops. As a result, Covad strongly urges that the Commission preserve its minimum national standards for unbundling.

Covad's comments are organized as follows: Section I describes the Commission's proposals in $\P\P$ 13-14 of the *Notice* on the need to establish minimum national standards for unbundling.⁴ In Section II.A, Covad presents its proposed balancing test for identifying unbundled network elements pursuant to Sections 251(d)(2) and 201(b) of the Communications Act of 1934, as amended (the "Act"), which responds to $\P\P$ 15-31 of the *Notice*. Section II.B discusses procedural aspects of proceedings for identifying unbundled network elements, responding to $\P\P$ 11-12 and $\P\P$ 41-42 of the *Notice*. Finally, Section III discusses several specific unbundling requirements ($\P\P$ 32-40 of the *Notice*), including conditioned loops, dedicated interoffice transport, and DS3 customer links.

Advanced Wireline Services Order"), Second Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, FCC 99-48 (rel. March 31, 1999) ("Second Advanced Wireline Services Order").

Covad Communications Company, "Covad Communications Announces First Quarter Results," April 23, 1999 (11.2 million homes and businesses passed, an increase of 87% over December 31, 1998). Since that April 23 release, Covad has launched its service in two additional regions, Chicago and San Diego.

Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, FCC 99-70, 64 Fed. Reg. 20238 (April 26, 1999) ("*Notice*").

I. THE NEED FOR MINIMUM NATIONAL UNBUNDLING STANDARDS

Covad strongly agrees with the Commission's tentative conclusion that it promulgate national minimum standards for unbundled network elements ("UNEs").⁵

Only the national availability of certain core UNEs will create an environment of vibrant competitive entry into broadband telecommunications markets.

The Commission must remember that unbundling is a means to an end. The 1996 Act is designed to put in place a "national policy framework" for competition in *all* telecommunications markets, including markets for broadband services. The unbundling required by Section 251(c)(3) of the Act, by permitting competitive local exchange carriers ("CLECs") access to fundamental and critical infrastructure of incumbent local exchange carriers ("ILECs"), is at the core of the Act's market-opening provisions and clearly fits within this framework of promoting the rapid development of competition and the availability of competitive broadband services to *all* Americans.

In building the nation's largest xDSL network, Covad is focused upon obtaining access to some fairly basic yet critically important network facilities that are still controlled by the ILECs —the ubiquitous ILEC wires that connect homes and businesses to the local central office and the similarly ubiquitous ILEC wires that connect those central offices to one another in a seamless, networked web. The predicable and national

Notice at ¶ 14 ("We find nothing in the Supreme Court's decision that calls into question our decision to establish minimum national unbundling requirements. We therefore tentatively conclude that the Commission should continue to identify a minimum set of network elements that must be unbundled on a nationwide basis.").

Joint Statement of Managers, S. Conf. Rep. No. 104-230, 104th Cong. 2d Sess. 1 (1996); Section 706 of the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, *codified at* 47 U.S.C. § 157 note

Second Advanced Wireline Services Order at \P 13. In the Second Advanced Wireline Services Order, the Commission called competitive broadband competition a "fundamental goal[]" of the 1996 Act. *Id.* at \P 1.

availability of those elements has clearly been necessary to advance Congress's goal of promoting broadband deployment by competitive companies like Covad.

A. National Rules Will Promote Entry

Competition in telecommunications markets cannot happen unless there is *entry* into those markets. It is all too easy to assume simply that local telecommunications competition is inevitable, and that well-financed CLECs are simply "waiting in the wings," eager to jump in and take advantage of whatever type of entry strategy is possible.

But it is not necessarily true.8

The breadth and scope of CLEC entry is highly dependent on the regulatory climate, the reluctant cooperation of the ILEC, and, of course, the presence of barriers to entry. Unbundling was designed by Congress to *lower* these barriers to entry, by requiring incumbent LECs to share the economies of scale, scope and density of their local networks. While the decision to serve any particular market is not exclusively dependent upon those factors, the geographic breadth and product scope of a CLEC's offerings in that market may be entirely dependent upon those regulatory factors, including the pricing and availability of UNEs.

A forthcoming book by Richard Tomlinson, President of Connecticut Research, Senior Associate with New Paradigm Resources Group, Inc. and widely regarded as the leading observer/historian of the CLEC movement, will discuss how competitive inroads are due to sometimes serendipitous events. *See* New Paradigm Resources Group, Inc., *1999 Annual CLEC Report*, Chapter 2, pp. 3-4. As the Tomlinson points out, one of the critical obstacles is financing: "Capital for expansion was a problem, however. . . . [T]he financial hardships of ICC [a DC-area CAP] had a sobering and significant effect on the willingness of investors to back CAPs and other start-up competitive telecommunications companies. *It had become clear that simply putting fiber in the ground and challenging the local telephone company was not a guaranteed route to riches*. . . . [F]or those that survived, most faced at least one critical point at which the odds against success appeared insurmountable." *Id.* (emphasis added).

⁹ First Local Competition Order, 11 FCC Rcd 15499 at ¶ 11 (1996) ("As we pointed out in our NPRM, the local competition provisions of the Act require that these economies be shared with entrants.").

The cost and availability of unbundled network elements—particularly unbundled dedicated transport and local loops and related operation support systems ("OSS")—are key regulatory factors. The predictable availability of UNEs is necessary because it permits facilities-based CLECs to scale their network build-out in a flexible manner. By definition, a CLEC desiring to offer xDSL services must have access to the copper loop infrastructure—indeed, xDSL technology was *invented* to take advantage of that installed copper loop base. As a result, competitive deployment of a mass-market, consumer-grade xDSL service to residential users largely depends upon national availability of loop elements and predictable pricing standards. 11

Covad's history demonstrates why it is important for national rules to firmly and resolutely establish uniform unbundling requirements. Covad began offering xDSL services in December 1997 over unbundled loops and transport in only one market—the San Francisco Bay Area. However, within a few short months of that launch, Covad was able to acquire the capital to export that same business plan to *twenty-two* markets nationwide. The nationwide existence of a pro-competitive, predictable regulatory regime played an important role in this process.

If unbundling were available only in patchwork fashion, competitive xDSL entry would *also* only be available in a patchwork fashion—a result clearly inconsistent with

See DOJ/FTC Horizontal Merger Guidelines, §§ 3.3, 3.4 (1992); see also Long Distance Affidavit of Robert Harris, on behalf of GTE Corp. Applications of WorldCom, Inc. and MCI Communications Corporation for Transfer of Control, CC Docket No. 97-211, March 13, 1998 at ¶ 69 ("Harris Long Distance Affidavit") ("A critical consideration when examining the likelihood of entry is whether entrants may flexibly choose their scale.").

Last month, Covad rolled out its TeleSurfer residential consumer DSL service. Covad Communications Company, "Covad Brings High-Speed DSL Internet Access Home," April 20, 1999, http://www.covad.com/about/press_releases/press_042099.html. Even those arguing against unbundling "advanced services" elements have recognized the importance of unbundling the local loop. *See* Robert W. Crandall & Charles L. Jackson, *Eliminating Barriers to DSL Service* at 42 (July 1998) (unpublished

this Commission's policy of promoting broadband services and Congress's intent in establishing a national policy of unbundling. Therefore, Covad strongly agrees with the Commission's tentative conclusion in paragraph 14 of the *Notice* that it establish national minimum standards for unbundling in Rule 51.319. To do otherwise would raise the cost of CLEC entry and, consequently, delay—perhaps permanently—the competitive benefits in the provision of broadband services.

В. **States Should Not be Permitted to Give ILECs UNE Exemptions**

The Commission has requested comment as to whether state commissions should be permitted to grant exemptions, which would re-write federal unbundling rules so as to limit the availability of UNEs in their respective states, subject to some form of competitive availability test and review by the Commission. 12 Covad does not believe that such a mechanism is consistent with the 1996 Act and sound public policy.

Section 251(d)(2) of the Act is clear—it directs the Commission to determine the unbundled network elements that incumbent LECs must provide to requesting carriers. This directive is unambiguous. Nothing in the Act suggests that the States are to play any role in defining or identifying any particular unbundled network elements.¹³ Given Congress' specific assignment of responsibility to the Commission, the agency does not have the discretion to delegate to the States the task of identifying the elements to be unbundled.

manuscript on file with Covad) ("Loop unbundling will provide a market constraint on the prices LECs can charge for DSL services.").

Notice at ¶ 14.

Indeed, Justice Scalia's opinion makes it very clear that the 1996 Act vests the Commission with responsibility for adopting federal regulations to implement the federal policy of nationwide local competition. Iowa, 119 S.Ct. 730 n.6 ("the question in this case is not whether the Federal Government has taken the regulation of local telecommunications away from the States. With regard to the matters addressed by the 1996 Act, it unquestionably has.").

Requiring the FCC to exercise exclusive responsibility for identifying UNEs is consistent with the structure of the 1996 Act. The 1996 Act established a "national policy framework" for opening up local markets to competition.¹⁴ As the Supreme Court recently ruled, the FCC is the primary agency charged with adopting regulations necessary to enforce the Act.¹⁵ The statute envisions uniform Commission rules relating to the local telecommunications competition provisions, not a patchwork quilt of exceptions and exemptions.¹⁶

Broadly delegating this power to the states would not be sound policy. The 1996 Act seeks to bring consumers the benefits of local competition as rapidly as possible. Only uniform national rules will do the job. Delegating significant rulemaking authority to the States would impede achievement of this goal. If the Commission delegates this authority, the ILECs will almost certainly initiate proceedings in most—if not all—States to obtain "relief" from their unbundling obligations. At a minimum, this will result in significant delay. In many cases, moreover, CLECs—which lack the incumbents' deep pockets and massive in-house legal staffs—will be unable to challenge all of these ILEC assaults. The end result will be adoption of rules that significantly CLECs ability to enter the market.

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Joint Statement of Managers at 1 (1996 Act established a "pro-competitive, deregulatory national policy framework"). The 1996 Act must be seen as a sea change in telecommunications policy Justice Scalia wrote, "Congress has broadly extended its law into the field of intrastate telecommunications" *Iowa*, 119 S.Ct. 733 n.10.

The Court stated that "[t]his is, at bottom, a debate not about whether the States will be allowed to do their own thing, but about whether it will be the FCC or the Federal Courts that draw lines to which they must hew." *Iowa*, 119 S.Ct 730 n.6.

Not only does Section 251(d)(2) of the Act refer only to the Commission's role in "identifying" UNEs, but Section 201(b) "explicitly gives the FCC jurisdiction to make rules governing matters to which the 1996 Act applies." *Iowa* 117 S.Ct at 730.

The Commission already has a statutory mechanism to assess its unbundling rules regularly—the biennial review required by Section 11 of the Act. The Commission should actively seek out state commission participation in that review. In that review, the Commission should make any needed changes to its national rules.

Assuming *arguendo* that the Commission decides that it would be appropriate to provide state-specific exceptions, the Commission should retain exclusive authority to grant such exemptions, subject to clear standards governing the circumstances in which such an exemption will be granted. Under this approach, the Commission would specify standards and procedures (consistent with those proposed by Covad in Section II.B below) for the states to follow in preliminary proceedings. However, no state decision finding that the exemption standards have been met should go into effect unless the Commission has ratified that decision.¹⁷

II. THE STANDARD AND PROCESS FOR IDENTIFYING UNBUNDLED ELEMENTS UNDER SECTION 252(d)(2)

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This would permit the FCC to utilize the strengths of the state commissions in developing facts, yet retain final authority. The Commission must retain final authority, or it would abdicate its responsibility with regard to interstate communications and implementation of the 1996 Act. For example, in New York Telephone Company v. FCC, 631 F.2d 1059 (2nd Cir. 1980), the Commission allowed the States to regulate local exchange service used in connection with foreign exchange ("FX") lines. However, when the New York Public Service Commission used this delegated authority in a manner that discriminated against interstate FX customers, in violation of FCC policy, the FCC preempted the State decision and asserted federal authority. The Second Circuit upheld the FCC's action, finding that the FCC had "reserved its ability to regulate local exchange service in situations in which there is discrimination against interstate services." Id. at 1065. The FCC should make a similar reservation of authority here, because state regulation of the availability of UNEs unquestionably impacts the implementation of the Act, a duty which Section 201(b) charges to the Commission, and the cost and availability of interstate telecommunications services. The Eleventh Circuit reached a similar conclusion in the now-familiar MemoryCall case. Georgia PSC, No. 92-8257, 1993 U.S. App. LEXIS 24458 (11th Cir. Sept. 22, 1993). In that case, the FCC allowed the States to regulate carrier-provided voicemessaging (an enhanced service). When Georgia ordered BellSouth to cease providing the service to new customers, including those who use the service to receive interstate messages, the FCC preempted the Georgia decision and allowed BellSouth to continue to offer the service subject to the FCC-approved CEI plan.

In this Section, Covad examines several aspects of the "UNE identification" process that Section 251(d)(2) of the Act requires. In revisiting its implementing rules, the Commission should seek to minimize the ability of incumbent LECs to "game" this process in a manner that will stall CLEC entry.

In Section II.A, Covad outlines its proposed substantive standard for the UNE-identification process required by Section 251(d)(2) of the Act. Covad argues that, consistent with the express statutory language, the "necessary" and "impair" considerations are not the only factors the Commission should consider in identifying UNEs. In Section II.B, Covad presents several procedural and burden of proof proposals that the Commission should employ in the UNE-identification process that will, in Covad's opinion, best utilize limited regulatory resources and minimize the potential for ILEC anti-competitive gamesmanship.

A. The Substantive Standard for Identifying UNEs under Section 251(d)(2)

Since the Supreme Court's decision, virtually all attention has been upon the words "necessary" and "impair" standard, while the remaining clear statutory language in Section 251(d)(2) has been virtually ignored. Section 251(d)(2) does *not* provide the Commission with a rule of decision, it only requires that the Commission "consider, at a minimum" the necessity of access and the impact a lack of access would have on the ability of CLECs to provide service. ¹⁸ The Supreme Court does nothing more than require the Commission to "determine on a rational basis which network elements must be made available *taking into account the objectives of the Act* and giving *some substance* to the 'necessary' and 'impair' requirements." ¹⁹

As the Commission rightly points out, "consider" is a rather low threshold to meet, ²⁰ as is the Court's admonition to give "some substance" to the "necessary" and "impair" requirements. The Court's decision, moreover, affirmatively directs the Commission to "tak[e] into account the objectives of the Act" in the UNE-identification process. Therefore, the 1996 Act's goal of rapid nationwide entry and the deployment of competitive broadband services certainly can justify the identification of a particular element, even if the "necessary" and "impair" standards—while "consider[ed]"—may not be satisfied.

Covad proposes that the Commission adopt the following balancing test to determine the UNEs that the ILECs must provide. These factors are all grounded in the objectives of the Act. As a result, Covad proposes that *all* of these factors should be

¹⁸ 47 U.S.C. § 251(d)(2).

¹⁹ *Iowa*, 119 S.Ct at 736.

"consider[ed]" in this and future proceedings, subject to the weighting described in Section II.A.4 below.

- The "Necessary" and "Impair" Considerations of Section 251(d)(2).
- Whether availability of the UNE on a predictable, national basis would facilitate rapid entry as envisioned by the Act.²¹
- Whether access to the UNE would promote the competitive deployment of advanced services to all Americans. ²²

Each of these considerations are addressed in turn.

1. The Necessary and Impair Considerations

Covad's proposals for defining the terms "proprietary", "necessary" and "impair" are substantially similar to the standard proposed by ALTS and that other facilities-based CLECs in this proceeding. Covad believes that these definitions meet the Supreme Court's requirements and are robust enough to ensure the competitive availability of broadband, xDSL services to American consumers.

Covad would like to highlight attention to several important aspects to the ALTS definitions of "proprietary", "necessary" and "impair".

a. The "Necessary" Consideration with Regard to Proprietary Elements

Covad proposes a three-step analysis to determine whether a proprietary element must be unbundled pursuant to Section 251(d)(2)(A). First, the Commission should examine whether the particular element is indeed "proprietary". Second, the Commission

Notice at \P 29.

This factor is consistent with the Commission recognition in paragraph 2 of the *Notice* that the national availability of UNEs "is integral to achieving Congress' objective of promoting rapid competition" and to "reduce uncertainties in the market."

²² 47 U.S.C. § 157 note.

should examine whether any "reasonable substitute" would provide the requesting carrier with "comparable functionality." Finally, the Commission must determine whether there is a demonstrably open, competitive, wholesale market that provides CLECs with access to those substitutes at rates comparable to the cost-based levels that the Commission's TELRIC methodology is designed to replicate. All three steps must be analyzed in the Commission's "consider[ation]" of this factor.

Need for "Proprietary" Elements. The Commission should establish an overriding principle that the ILEC cannot render a particular element "unbundleable" by deploying a proprietary system, equipment, interface or protocol whenever a comparable non-proprietary substitute is available. If an element does not meet this test, it should be subject only to the "impair" consideration. Application of this principle would encourage the deployment of "open network" equipment.²³ In addition, the proprietary interests of third-party vendors cannot be used by an ILEC to invoke Section 251(d)(2)(A).²⁴

Identification of "Comparable Substitutes" which provide "Comparable Functionality." This factor takes into account both demand and supply side factors.²⁵

The Commission should, incidentally, require ILECs to take into account their unbundling obligations in purchasing new equipment. Otherwise, ILECs would have incentive to acquire proprietary equipment and systems not because the equipment or system is better but because it would limit CLEC entry.

The Commission should be especially concerned about ILECs deploying "proprietary" integrated digital loop carrier systems ("IDLCs"). IDLCs integrate a remote terminal device with the switch, and may involve proprietary interfaces at the central office level. Deployment of DSLAMs in IDLC arrangements has apparently already begun by ILECs. See US West, "U S WEST Unveils Technology Enhancements that Nearly Double Number of Customers who can Receive its Lightening-fast ADSL Internet Service," Oct. 28, 1998, http://www.uswest.com/news/102898.html ("In the first quarter of 1999, U S WEST will begin targeted deployment of remote services solutions that enable customers currently served by Digital Loop Carriers (DLCs) to get MegaBit Services. . . . The solution initially involves placing MegaBit equipment in the field adjacent to metal cabinets that house DLCs ").

In the language of the Commission's well-established competitive analysis, this step may be regarded as the "market definition" and "identification of competitors" steps. For a comprehensive discussion about this process, see Applications of NYNEX Corporation and Bell Atlantic Corporation for Consent to Transfer of Control, Memorandum Opinion and Order, 12 FCC Rcd 19985 (1997) ("BA/NYNEX Merger Order").

Most particularly, the Commission must focus upon whether the requested ILEC element substantial economies of scale, scope and density that are not possessed by other products or services. The Commission should firmly establish that a "reasonable substitute" is *not* present unless it is shown that the requesting carrier can obtain substantially the same economies of scale, scope and density to the comparable functionality without obtaining access to the proprietary aspect. The Commission should take into account other factors in identifying "reasonable substitutes", such as the cost, timeliness and availability of the substitute, and quality.

Competitive Market Analysis. If the Commission finds that "reasonable substitutes" are available, it then should determine whether a demonstrably open and competitive wholesale market for these "reasonable substitutes" exists. This market analysis, discussed more fully in Section II.A.3 below, would utilize the competitive analysis undertaken by the Commission in the BA/NYNEX Merger Order, the AT&T Non-Dominance Order, 26 the regulatory treatment of LEC interexchange services, 27 and other recent Commission decisions. Until such a competitive market does exist, the ILECs should be required to provide the element on an unbundled basis.

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Motion of AT&T to be Reclassified as a Non-Dominant Carrier, 11 FCC Rcd 3271 (1995) ("AT&T Non-Dominance Order").

Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC's Local Exchange Area and Policy and Rules Concerning the Interstate Interexchange Marketplace, Second Report and Order in CC Docket No. 96-61, 12 FCC Rcd 15756 (1997) ("ILEC In-Region Interexchange Order").

Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, Second Report and Order, Order on Recon., and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 12545 (1997) ("LMDS Eligibility Order"); Craig O. McCaw and American Tel. & Tel. Co., 9 FCC Rcd 5836 (1994), recon. denied, 10 FCC Rcd 11786 (1995), aff'd sub nom., SBC Communications v. FCC, 56 F.3d 1484 (D.C. Cir. 1995).

b. The "Impair" Consideration

The "impair" consideration must focus on whether denial of access would materially diminish the requesting carriers' ability to offer its desired service. This involves a two-part analysis: (1) the identification as to whether "seamlessly interchangeable" substitute(s) exist; and (2) an analysis as to whether a demonstrably open and competitive market for those interchangeable substitutes exists.

Aside from the absence of "proprietary" aspects, the "impairment" consideration differs from the "necessary" consideration in one important respect. Because customer expectations many times are centered about particular technologies, the "seamlessly interchangeable substitute" threshold will not include certain substitutes that might—from a purely functional perspective—be considered a "reasonable substitute."

Again, the factors to be taken into account in determining whether non-ILEC substitutes are seamlessly interchangeable are familiar—the number of alternative suppliers, quality, and presence of price, economies of scale, scope and density. As for determining whether an open and competitive wholesale market exists, the Commission should use the same method of competitive analysis. In particular, rather than engage in

For example (for illustrative purposes only), certain Centrex switch functions may have comparable substitutes in PBX equipment. However, migrating a customer from Centrex to PBX may not be "seamlessly interchangeable" from the perspective of the customer or of the CLEC.

Another way of thinking about the difference draws from the market definition in the DOJ/FTC Horizontal Merger Guidelines. In identifying substitutes, the DOJ or FTC will look to see if customers would turn towards a substitute product in the face of a significant, non-transitory increase in price. One could think of determining the difference between a "reasonable substitute" ("necessary") and a "seamlessly interchangeable substitute" ("impairment") by adjusting what a "significant" price increase is. For example, customers would purchase a "seamlessly interchangeable substitute" perhaps with a 5% non-transitory increase in price; but customer would only turn to a "reasonable substitute" with a 10% non-transitory increase in price.

That said, Covad does not believe that the Commission should—or can—even engage in such a refined cost-analysis. *See* Section II.A.2 below (focus on presence of competitive market, not prices). However, the principle remains the same—a "seamlessly interchangeable substitute" would be a "closer" substitute than a "reasonable substitute."

detailed examination and comparison of costs, the Commission should insist that there exist a demonstrably open and competitive wholesale market for the interchangeable substitute product or service. In such a competitive market, the prices for substitutes for the element will trend towards the forward-looking, TELRIC-based costs.

2. Competitive Market Analysis

The competitive market analysis utilized by the Commission with regularity in recent years can and should be utilized in the UNE Identification context in the event that an ILEC argues that unbundling of a particular element is not "necessary" or would not "impair" a CLEC's service. ³⁰ This competitive analysis, already a well-accepted component of the Commission's public interest analysis, is superior to one other standard that has been proposed, the Essential Facilities Doctrine of antitrust law.

In recent years, the Commission has undertaken similar competitive analysis, in the AT&T Nondominance Order, the Bell Atlantic-NYNEX Merger, the LMDS Eligibility Order, and the ILEC Interexchange Services Order. All of these competitive analyses contain a common thread and contain several common elements.

Market Definition/Proper Identification of Substitutes. As described above, the Commission already will have identified the relevant substitutes ("reasonable substitute" for "necessary" consideration; "seamlessly interchangeable substitute" for "impair" consideration). In identifying those sources, particular attention must be paid to the fact that telecommunications markets consist of "point-to-point" and "point-to-multipoint"

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See, e.g., BA/NYNEX Merger Order, 12 FCC Rcd 19985; SBC/SNET Merger Order,13 FCC Rcd 21292 (1998); AT&T/TCI Merger Order, 12 Comm. Reg (P&P) 29 (1998); MCI/WorldCom Merger Order, 13 FCC Rcd 18025 (1998); ILEC In-Region Interexchange Order, 12 FCC Rcd 15756; and LMDS Eligibility Order, 12 FCC Rcd 12545.

geographic markets.³¹ For example, in looking for substitutes for interoffice transport UNE, the Commission must not only look to see if comparable bandwidth (DS3, OCx) is available from alternative sources, but also look to see of that alternative is available in the particular point-to-point route.

Supply Elasticity/Ease of Entry. Even if alternative sources are available, those alternative sources of supply must possess capacity to supply the entire wholesale market if the ILEC were to cease providing the particular UNE. In addition, the Commission must assess the ease of entry into the market for supplying the alternative. If barriers to entry and sunk costs are present, supply of the alternative product is apt to be inelastic and the market for the alternative is less likely to be vibrantly competitive. Certainly, when it comes to laying fiber optic cable, the difficulties of entry are well-documented.³² Commentators have often stated that entry barriers into network-type industries like data telecommunications are high.

Existence of Wholesale Market. Wholesale markets do not spring out of the ground; they must be created. New distribution and sales channels must be generated, and the sales and customer support process is considerably different for the two channels. For example, Covad maintains two separate sales staffs—one staff which handled direct sales to corporate remote-LAN customers, and a separate staff that handles sales to Covad's Internet Service Provider ("ISP") resellers. Not every CLEC with fiber or a switch in a city has made a commitment to enter into the wholesale market for those

See, e.g., BA/NYNEX Merger Order at ¶ 54; see also Harris Long Distance Affidavit at ¶ 17 (citing the need for specific attention to "locational specificity of the underlying facilities").

See 1999 Annual CLEC Report at Ch. 9, p. 7 ("Traditional SONET-ring architecture faces severe scalability limitations as a long-term transport solution for data."); Harris Long Distance Affidavit at ¶ 26: ("Simply counting fiber-miles is similar to assuming that an ample supply of wheat grain is all that is

services. Purchasing from multiple wholesale suppliers also increases requesting carrier costs.

Number of Alternative Suppliers/Price Issues. The existence of only one other provider does not establish a competitive market price for the service. The Commission has recognized this fundamental principle in several past proceedings and has taken active policy steps to ensure that multiple providers be present.³³ The absence of four non-ILEC suppliers of substitutes should give the Commission great pause before declaring a particular wholesale market to be competitive. The absence of multiple, similarly situated wholesale suppliers will cause there to be a restriction in output and increase in prices from a competitive market.³⁴

Although Covad does not urge the Commission to adopt a "nose-counting" test in all instances, such an approach may be used as a complement to price and cost analysis. With local competition information scarce, Covad does not believe that the Commission can now reliably determine "cost-difference" thresholds, as suggested by the *Notice*. At

$$\{N/(N+1)\}\ x\ Q(c) = Q(nc)$$

Where "N" is the number of rival suppliers, Q(c) is perfectly competitive market output, and Q(nc) is actual industry output predicted by the Cournot Model. James Friedman, Oligopoly Theory, Ch. 2 (1982).

necessary to make bread"); Harris Long Distance Affidavit at ¶ 75 ("Fiber by itself is not 'capacity, per se"").

See LMDS Eligibility Order, 12 FCC Rcd 12545 (declaring incumbent LECs and incumbent cable companies ineligible to acquire in-region LMDS licenses because an independently owned potential entrant into local voice, video and data markets was in the public interest). The Commission made similar decisions in preventing current DBS satellite slot holders from acquiring the Advanced DBS satellite slot in 1997 and in establishing a "spectrum cap" for CMRS mobile spectrum. Those policies have been a success: EchoStar has emerged as a "price-cutting" third competitor to cable and DirecTV, and CMRS price wars in locations of five to six rival cellular/PCS carriers are legendary.

Cournot's model of competition shows that the competitiveness of an industry is directly related to the number of firms supplying the market:

This formula estimates that a market will realize only 67% of the full benefits of competition in the presence of two rival suppliers. In the presence of three rivals, output will be 75% of a competitive market—an increase of 8% over two suppliers. With four suppliers, output will be 80%; with five rivals, 84.3%.

this time, the only option available to the Commission may be ensuring that an open and competitive wholesale market, with a particular emphasis on ensuring that multiple suppliers have excess capacity to serve the wholesale market.

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The Commission has the expertise to take all of the above factors of its competitive analysis into account in assessing whether a wholesale market for alternatives actually exists. Covad believes that this analysis should be fully utilized in the UNE Identification process.

3. Relevance of the Essential Facilities Doctrine

As discussed above, Covad believes that a complete competitive market analysis that focuses upon whether an open and competitive wholesale market exists for a substitute is consistent with Commission precedent and satisfies the Supreme Court's mandate that the Commission look to "alternative" sources of supply for elements during the UNE Identification process.

Some ILECs are likely to invite the Commission to adopt the "Essential Facilities" Doctrine as an appropriate standard for UNE Identification, arguing that unless a potential UNE would be an "essential facility" under the antitrust law, it should be exempt from the unbundling requirements. The Commission should decline those invitations. These arguments must be seen for what they are, attempts to limit implementation of the pro-competitive policies adopted by Congress.

Of course, if the Commission determines that an unbundled element is an "essential facility" or that failure to provide access would otherwise violate the antitrust laws, the Commission should order that such element or access be made available.

However, a finding that an antitrust violation—while certainly a sufficient condition—is not a necessary condition for Commission action.

It has been long established that administrative agencies (and the Commission in particular) governed by the public interest standard are *not* limited to policing the antitrust laws. Most particularly, administrative agencies do not use the antitrust laws as the sole arbiter of the "public interest" standard. Rather, the Commission must "make findings related to the pertinent antitrust policies, draw conclusions from the findings, and weigh these conclusions along with other important public interest considerations."³⁵

The Commission's public interest mandate results directly from the fact that the Commission must solve two discrete economic problems that do not come under the mandate of the antitrust laws: (1) assuring that the regulated firms under the Commission's jurisdiction do not engage in anticompetitive behavior or charge captive ratepayers monopoly prices; and (2), where practical, *affirmatively* formulating regulatory paradigms designed to improve overall market performance in both the shortrun and especially, given the huge sunk costs inherent to the telecommunications industry, the long-run.³⁶ Given this task, courts have held that the Commission's

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United States v. FCC, 652 F.2d 72, 81-82 (D.C. Cir. 1980) (en banc) (quoting Northern Natural Gas Co. v. FPC, 399 F.2d 953, 961 (D.C. Cir. 1968)); see also FCC v. National Citizens Comm. for Broad., 436 U.S. 775, 795 (1978); Gulf States Utils. Co. v. FPC, 411 U.S. 747, 755-62 (1973) (regulatory agencies must consider "matters relating to both the broad purposes" of their enabling statutes "and the fundamental national economic policy expressed in the antitrust laws"); FCC v. RCA Communications, Inc., 346 U.S. 86 (1953) ("There can be no doubt that competition is a relevant factor in weighing the public interest.").

See L. Spiwak, Antitrust, the "Public Interest" and Competition Policy: The Search for Meaningful Definition in a Sea of Analytical Rhetoric, Antitrust Report (Matthew Bender Dec. 1997) at 2, 6-14 (http://www.phoenix-center.org/library/neo_comp.doc). It should be noted, however, that the Commission's challenge is made more complex because telecommunications is clearly an industry characterized by rapid change and innovation. This challenge is even more evident with the passage of the Telecommunications Act of 1996. See, e.g., Turner Broadcasting System, Inc., v. FCC, 117 S. Ct. 1174, 1189 (1997) (regulatory schemes concerning telecommunications have "special significance" because of the "inherent complexity and assessments about the likely interaction of industries undergoing rapid economic and technological change"); Denver Area Educational Telecommunications Consortium, Inc., v. FCC, 518 U.S. 727, 742.(1996) (Court is "aware . . . of the changes taking place in the law, the technology,

mandate is significantly *broader* than that of the antitrust enforcement agencies, because the Commission is "entrusted with the responsibility to determine when and to what extent the public interest would be served by competition in the industry."³⁷

As a result, public interest regulation and antitrust approaches analyze market performance from different perspectives—public interest regulation seeks to promote competitive rivalry directly "through rules and regulations" while antitrust enforcement seeks to foster competitive rivalry "indirectly by promoting and preserving a process that tends to bring them about."³⁸

Even assuming *arguendo* the Commission should be convinced to apply some aspects of the Essential Facilities Doctrine in deciding what elements are to be unbundled, it is crucial to recognize that the Essential Facilities Doctrine still does *not* give the BOCs the "limiting" immunity they are likely to seek. In particular, the

and the industrial structure, related to telecommunications, see, e.g., Telecommunications Act of 1996 "). Indeed, the idea that the Communications Act is robust enough to deal with new technologies and issues pre-dated the 1996 Act. *See Columbia Broadcasting, Inc v. Democratic National Committee*, 412 U.S. 94, 102 (1973) ("The problems of regulation are rendered more difficult because the . . . industry is dynamic in terms of technological change"); *FCC v. Pottsville Broadcasting Co.*, 309 U.S. 134, 138 (1940) (The "Communications Act is not designed primarily as a new code for the adjustment of conflicting private rights through adjudication. Rather it expresses a desire on the part of Congress to maintain, through appropriate administrative control, a grip on the dynamic aspects" of the telecommunications industry).

FCC v. RCA Communications, Inc., 346 U.S. 86, 93-95 (1953); Northeast Utils. Serv. Co. v. FERC, 993 F.2d 937, 947-48 (1st Cir. 1993) (public interest standard does not require agencies "to analyze proposed mergers under the same standards that the [DOJ] . . . must apply" because administrative agency is not required to "serve as an enforcer of antitrust policy in conjunction" with the DOJ or FTC; thus, while agency "must include antitrust considerations in its public interest calculations . . . it is not bound to use antitrust principles when they may be inconsistent with the [agency's] regulatory goals"); see also National Broadcasting Co. v. United States, 319 U.S. 190, 219 (1943) (Congress, through the Communications Act, "gave the Commission not niggardly but expansive powers."); Craig O. McCaw, Memorandum Opinion & Order, 9 FCC Rcd. 5836 (1994), aff'd, SBC Communications v. FCC, 56 F.3d 1484 (D.C. Cir. 1995) (FCC's "jurisdiction under the Communications Act gives us much more flexibility and more precise enforcement tools that the typical court has").

³⁸ Town of Concord v. Boston Edison Co., 915 F.2d 17, 22 (1st Cir. 1990) (Breyer, J.), cert. denied, 499 U.S. 931 (1991).

Essential Facilities doctrine does not shield BOCs from refusing to provide access to rivals at unreasonable reasonable cost or and on a discriminatory basis.

Essential Facilities case law sets forth four elements necessary to establish liability for refusals to provide access to a competitor:

- (1) Control of the essential facility by a monopolist;
- (2) A competitor's inability *practically or reasonably* to duplicate the essential facility;
- (3) The denial of the use of or access to the facility to a competitor; and
- (4) The feasibility of providing the facility by the monopolist.³⁹

Over the last several years, there has been significant debate over the exact circumstances in which an "essential" input is "capable" of duplication. While this debate has been spirited, nearly everyone seems to agree that the Essential Facilities standard requires something more than just "expensive" entry costs. ⁴⁰ For this reason, courts have found everything from cable programming ⁴¹ to airline reservation systems ⁴² capable of "duplication." However, as highlighted above, the Essential Facilities doctrine also requires the fact-finder to look at whether it is *practical* or *reasonable* – in the context of the conditions of the relevant market – to duplicate the essential input as well. ILEC local networks remain the quintessential example of an essential input possessing considerable economies of scale, scope and density that cannot be "reasonably and

MCI Communications Co. v. AT & T, 708 F.2d 1081, 1132-33 (7th Cir.), cert. denied, 464 U.S. 891, 104 S.Ct. 234, 78 L.Ed.2d 226 (1983). It is interesting to note that the words "essential" and "facility" do not occur in Section 251(d)(2)—further evidence of Congressional intent not to codify the doctrine.

See generally Phillip Areeda, Essential Facilities: An Epithet In Need Of Limiting Principles, 58 Antitrust L.J. 841 (1989).

⁴¹ Cf. TV Communications Network, Inc. v. ESPN, Inc., 767 F. Supp. 1062 (D. Colo. 1991), aff 'd, 964 F.2d 1022 (10th Cir.), cert. denied, 113 S. Ct. 601 (1992); Futurevision Cable Systems of Wiggins v. Multivision Cable TV Corp., 789 F. Supp. 760 (S.D. Miss. 1992), aff 'd, 986 F.2d 1418 (5th Cir. 1993).

practically" duplicated in many areas of the United States on the scale necessary for ubiquitous coverage.

Indeed, today's circumstances are not all that different than fifteen years ago when the Seventh Circuit held that AT&T violated Section 2 of the Sherman Act by refusing to connect MCI to its local network. There, AT&T had complete control over the local distribution facilities that MCI required. As such, the court found those local facilities "essential" for MCI to offer FX and CCSA service. In other words, AT&T's refusal to share its local facilities to accommodate MCI's request to use AT&T facilities did not *impede* competition – it *eliminated* it altogether.⁴³

Of course, some would now argue that with the 1996 Act and technological developments, any claim that access to local facilities is an "essential" facility should fail because the local loop is no longer considered a "natural" monopoly and there are plentiful alternative sources of supply. However, even if one declines to describe the local loop as a "natural" monopoly, one does not thereby refute the reality that ILEC local facilities retain huge shares of the local market and therefore remain a "de facto" monopoly. Facilities-based CLEC shares of the market remain well in the single digits. ⁴⁴ Moreover, despite some recent victories and the final promulgation of effective

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⁴² Alaska Airlines Inc. v. United States Airlines, Inc., 948 F.2d 536 (9th Cir. 1991), cert. denied, 503 U.S. 977 (1992).

⁴³ *MCI*, 708 F.2d at 1132-33.

A recent FCC Staff study makes this point clear. FCC Common Carrier Bureau, Industry Analysis Division, *Local Competition* (Dec. 1998) ("FCC Staff Local Competition Study"). FCC Staff found that CLECs provided less than 3% of the nation's switched access lines, only approximately one-quarter of which were on their own facilities. *Id.* at 1, The FCC Staff Report also dispels two myths about local entry: resale entry outnumbered unbundled loops by a factor of approximately 10:1, and 40% of CLEC resold lines were serving *residential* customers. *Id.* at 2.

collocation rules, achieving full-scale facilities-based entry remains difficult.⁴⁵ This goal is made even more difficult by the rapid re-concentration of both the ILEC and cable industries.⁴⁶

Finally, ILECs also have no legitimate business justification to deny rivals access to their local facilities. ⁴⁷ In fact, given the fact that CLECs must pay "cost" plus a "reasonable profit" to ILECs when they acquire unbundled elements, it is difficult to understand any *legitimate* business interest for the ILECs to refuse to provide those unbundled elements. ILEC efforts to obtain exemptions from unbundling must, by definition, be related to simple anticompetitive goals of keeping new entry to an absolute minimum. As a result, ILECs cannot use this defense to excuse their refusals to provide CLECs access and instead must be seen for what they are—attempts to "warehouse" their local facilities to monopolistic ends.

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See, e.g., George S. Ford, Opportunities for Local Exchange Competition Are Greatly Exaggerated, ELECTRIC LIGHT & POWER (April 1998) at 20-21 (http://www.phoenix-center.org/library/ford_1.doc).

See, e.g., Business Week January 11, 1999 (in the words of SBC CEO Ed Whitacre: "We can sit here and get picked on" . . . "or get bigger and have more clout."); see also Reconcentration of Telecommunications Markets After the 1996 Act: Implications for Long-Term Market Performance (Second Edition), Phoenix Center Policy Paper Series No. 2 (July 1998) (http://www.phoenix-center.org/pcpp/pcpp2.doc).

See, e.g., City of Anaheim v. Southern Cal. Edison Co., 955 F.2d 1373, 1380-81 (9th Cir. 1992).

4. Consideration of Other Factors

As discussed above, Section 251(d)(2) clearly contemplates that the Commission consider other factors in identifying UNEs, and the Supreme Court expressly directed the Commission to take into account the purposes of the Act in this process. Covad proposes two additional factors, both of which are grounded in the act: the rapid development of competition, and the deployment of competitive broadband services to "all Americans."

Rapid Competition. In the 1996 Act, Congress clearly expressed its desire for the "rapid" development of competition in all telecommunications markets. National minimum standards for unbundled network elements clearly facilitates rapid entry into these markets. As a result, in identifying any particular UNE, the Commission should assess and balance whether having a consistent and predictable national unbundling principle for the element in question would promote rapid entry into local telecommunications markets. At this point—with competition still in its infancy and with CLECs developing and financing their entry plans—this factor should play a principal and perhaps dominant role in this proceeding.

Local competition and alternative CLEC networks remain in their infancy. As reported by FCC Staff in December, 1998, not even 3% of the nation's switched access lines are provided by competitive providers, and not even a quarter of them over CLEC end-to-end facilities. Even in downtown city districts, the number of "addressable" consumers exclusively through "on-net" service is minimal; an estimated 105,000

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FCC Staff Local Competition Report at 1.

buildings in the entire United States.⁴⁹ CLECs can only address the other millions of buildings and homes through the use of the ILEC network.

CLECs are still formulating different and innovative business plans based on the availability of unbundled elements. By obtaining unbundled dedicated transport, unbundled loops and physical collocation, "fiber-less" or "smart build" CLECs like Covad and Allegiance can "address" substantial numbers of businesses and residential consumers in a manner much faster than digging up city streets. Indeed, with the Commission's recent reform of the physical collocation rules, fiber-less CLECs can be expected to even further outstrip (in number of central offices served) the geographic scale of CLEC fiber ring deployment. All of this growth is, however, predicated upon the continued nationwide availability of unbundled elements such as loops and transport.

Broadband Deployment. A second additional factor that the Commission must consider in identifying UNEs is whether ordering the UNE would promote the availability of competitive broadband services to Americans. As described below, Covad believes that this factor should be used to order universal availability of xDSL-conditioned loops—regardless of ILEC xDSL or ISDN entry plans, regardless of loop length, regardless of the presence of intervening electronics or fixtures in the facility such as load coils, remote terminals, digital loop carriers, or bridged taps.

The availability of xDSL-conditioned loops on an unbundled basis *nationwide* would facilitate the ability of CLECs like Covad to deliver their services to residential and rural America. In addition, the competitive pressure of CLEC entry would then encourage ILECs to deploy competing services in those same areas. ILECs who resist

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^{49 1999} Annual CLEC Report, Chapter 6, Table 10.

⁵⁰ 47 U.S.C. § 157 note.

making DSL-conditioned loops available universally should be prepared to explain exactly why they need to reserve the right to prevent some of their customers from ordering advanced, xDSL services.

B. Procedural Aspects for "UNE Identification" and "UNE Exemption" Proceedings

In Section III.A of the *Notice*, the Commission presented several questions related to the procedural and burden of proof aspects of identifying UNEs in this and other proceedings.⁵¹ Covad believes that the Commission should establish several procedural rules, including presumptions and payment of costs, that will minimize the incentive of ILECs to game the UNE-identification process to raise unnecessarily the costs of their CLEC rivals.

Business plans and the future development of local competition hang in the balance of these proceedings. The Commission must keep in mind the recent findings of FCC Staff, who concluded that that "information on local competition is scarce, dependent primarily on press releases and company reports that differ in scope and presentation." Relying on such information is not good enough. In undertaking this competitive analysis, the Commission must rely on real, hard and established data, and not on "mere company announcements" of entry or lists of "potential entrants." The Commission should continue the data-collection efforts of its Industry Analysis Division,

In this section, Covad will refer to such proceedings in two ways. as "UNE Identification" and "UNE Exemption" Proceedings. A UNE Identification proceeding—like this one—seeks to determine which network elements ILECs must provide unbundled access to. A UNE Exemption proceeding—possibly contemplated by the Commission as a "sunset" proceeding, *FNPRM* at ¶ 11—is a subsequent proceeding in which the Commission and/or ILECs may reassess the availability of previously-ordered UNEs.

FCC Staff Local Competition Report at 3.

but in the interim, the Commission must maintain a high presumption against ILECs that argue about "alternative sources of supply" to keep particular elements out of Rule 51.319.

Frankly, ILECs have demonstrated their desire to fight unbundling requirements with every opportunity. Unleashing element-by-element, *Bleak House* type litigation would impose significant personnel costs far in excess of the benefits and would involve not simply legal efforts. Considerable effort would be required from network engineers, designers, marketing, acquisition and customer support staff so as to provide a sufficient factual record to support these legal presentations. These costs would have an especially adverse impact on start-up CLECs, who do not have a stable of professional witnesses like the ILECs.

The fact is, CLECs are more interested in building networks than in litigating with the ILECs. Not every CLEC has the legal firepower and can spare the engineering support to even participate in every relevant FCC proceeding, *let alone 51 contemporaneous PUC proceedings*. Even in this well-publicized docket, Covad knows of several facilities-based CLECs that depend on the availability of elements but who will not participate because of their limited resources.

To minimize the potential for ILEC attrition of CLEC assets in order to hinder competitive entry, the following parameters therefore should apply to UNE Identification and UNE Exemption proceedings.

UNE Identification Proceedings

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Robert Harris once testified that the Commission cannot rely on "mere company announcements, on new 'potential entrants,' and on fiber deployment alone" in its competitive analysis. Harris Long Distance Affidavit at ¶ 75.

- UNE Identification proceedings may be started by the Commission or state commission *sua sponte* or in response to a petition. These petitions shall be put out for public comment. The subsequent UNE Identification proceeding should be completed within nine months of initiation.
- A strong rebuttable presumption will exist for elements already ordered by a state commission or listed in the Section 271 checklist. The ILEC should bear the burden of proof and production in rebutting this strong presumption by clear and convincing evidence. This "best practices" approach builds upon the Commission's new collocation and interconnection rules.
- For other UNEs (those not already ordered by a state commission or listed in Section 271), a lower rebuttable presumption in favor of unbundling should apply. The ILEC should bear the burden of proof and production in rebutting this presumption by substantial evidence.
- ILECs and CLECs must have the ability to subpoena records and compel testimony. Redacted public and non-public briefs would be filed before the Commission.
- The Commission or state commission would make its decision based upon the three-factor test articulated above ("necessary" and "impair" factor, promotion of rapid entry into local markets, and promotion of competitive broadband deployment). While each factor should receive consideration, not all three factors have to be satisfied to order unbundling of the element.

- The clear presumption is in favor of maintaining the UNE.
- ILEC must file a *prima facie* case with the Commission (during the Biennial Regulatory Review) or the state commission (where appropriate)⁵⁵ in which it: (1) identifies the particular element it seeks to receive an exemption (including the proprietary aspect, if the ILEC is seeking to invoke Section 251(d)(2)(A)); (2) describes in detail—on at least a central office-by-central office basis—the geographic scope of the requested exemption; (3) identifies, on at least a central office-by-central office basis, no fewer than four alternative sources of supply for substitute combine that have sufficient capacity to supply all wholesale demand for the element;⁵⁶ and (4) demonstrates that a wholesale market for those substitutes exists, complete with the ILEC's estimate (including supporting documentation) of the "market price" for those alternatives.

 The Commission may immediately reject any non-specific filings for "relief" or "waivers" that do not contain this prima facie case.

As discussed in Section I.B above, rather than unleash a cornucopia of case-by-case petition, Covad believes that the preferred forum for "UNE Exemption" proceedings is the FCC's Biennial Regulatory Review. However, the following proposals should be adopted by the Commission if the Commission determines that it will permit petitions for exemptions.

As discussed in Section I.B above, Covad does not believe that the law permits, or sound public policy allows, the Commission to delegate the responsibility "de-commission" national UNEs to state commissions. Covad includes this reference to state commissions only in the event the Commission decides that state commissions are to have a role in this process. As described above, if the Commission does permit the states to play a role in this UNE Exemption process, it should limit the state role to making preliminary decisions and findings, which the Commission must subsequently ratify.

As described above, "reasonable substitutes" if the ILEC is invoking the "necessary" consideration; "seamlessly interchangeable substitutes" if the ILEC is invoking the "impair" consideration. As described in Section I.A above, Covad does not believe that the Commission should engage in "nose-counting" to determine whether a competitive wholesale market exists. That said, requiring that the ILEC

- The public will be permitted at least sixty days to file public comments on the ILEC *prima facie* case. After that public comment period, the Commission or state commission (where appropriate) must decide whether the ILEC has met its *prima facie* case before permitting the UNE Exemption case to proceed.
- In the subsequent phase, the ILEC will bear the burden of proving with clear and convincing evidence that an alternative, competitive, and wholesale source of supply of the substitute ("reasonable substitute" for proprietary element; "seamlessly interchangeable substitute" for other elements) is available for every potential CLEC application.
- In order to meet its burden of proof, the ILEC would have the ability to subpoena records and testimony, provided that the ILEC must fully compensate other parties for costs involved in producing those records and making witnesses available for testimony. This requirement would ensure that ILECs only pursue credible UNE Exemption cases. Given the obvious competitive sensitivity of the data sought, only outside counsel for the ILEC should be permitted to receive discovery from CLECs, subject to a strong protective order. Similar discovery on ILEC records and witnesses would be permitted to other parties. Redacted public and non-public briefs would be filed before the Commission.
- If the ILEC that initiated the UNE Exemption proceeding fails to convince the Commission to grant the requested exemption, the ILEC will fully

provide evidence of multiple sources of supply capable of serving the market as part of the *prima facie* case would deter spurious ILEC filings.

compensate all opposing parties for their complete costs in defending availability of the UNE in *both* phases of the proceeding.

Covad believes that these procedural parameters—especially those involving burdens and costs for UNE Exemption proceedings—are important in order to provide a "check" against ILEC abuse of the process. CLECs should not have to be in the position of continually defending their entry plan in litigation without some check upon ILEC's incentive to initiate that litigation. Requirements that ILECs fully compensate CLEC costs spent in defending a UNE from exemption will prevent ILECs from unleashing a fusillade of willy-nilly, baseless petitions for exemptions or requests for "regulatory relief"

III. SPECIFIC UNBUNDLING REQUIREMENTS

Three years of experience under the current old Rule 51.319 have revealed several areas in which more precise rules and delineation of ILEC obligations coupled with timely and effective enforcement penalties that would serve all parties and the cause of competition itself.

These first three years of unbundling have revealed some surprising successes.

The success of Covad and other DSL-focused CLECs has reinvigorated the potential for new competitive entry into residential broadband markets. ⁵⁷ By focusing on unbundled transport, unbundled loops and collocation, data CLECs are able to deploy advanced, xDSL services in residential neighborhoods on a nationwide basis. This plan fully leverages the economies of scale, scope and density that ILECs currently possess in their interoffice network, outside plant, and central offices in a way that brings new and

innovative services to American consumers. Maintaining access to all of these elements is crucial to the continued expansion of this service.

Covad generally does not seek unbundled access to the intelligence of the ILEC network—largely because that intelligence was engineered for circuit-switched purposes and not optimized for the packet-switched data purposes Covad seeks to deploy.

However, because the ILECs' dumb wires between central offices and central offices and American homes and businesses are ubiquitous, ILECs possess a unique market position.

Despite only limited ILEC innovation prior to the onset of competition, ILECs even today remain the undisputed dominant provider of local telecommunications services to Internet service providers, telecommuters, businesses and residential consumers.⁵⁸ The economies of scale, scope, density and connectivity associated with this installed base of wires between central offices and between central offices and the surrounding community is powerful indeed.

In the pages that follow, Covad identifies four elements important to its entry plans—unbundled local loops, unbundled dedicated transport, DS3 customer links, and related OSS. No doubt, other competitors will propose other elements that are consistent with their individual business plans. Covad's silence with regard to any particular element in these Comments should not be interpreted as an argument that such elements need not be unbundled—the availability of any particular element should stand on its own merits. Finally, although Covad argues in Section II.B above that ILECs should

"Probably no single technology has affected this year's CLEC market as much as the rapid deployment of Digital Subscriber Line (DSL) service. . . . 1999 is going to be the year when DSL comes of age and is readily available to the mass market." 1999 Annual CLEC Report at Ch. 9, p. 2.

FCC Staff Local Competition Report at 1-2 (ILECs have more than 95% of total local service revenues, 94% of local private line services to end users, over 97% of nationwide switched access lines, and have 89% of local fiber optic system capacity).

bear the burden of proof in this proceeding, Covad presents substantial evidence of the importance and need for these particular elements in these Comments.

A. xDSL-Conditioned Local Loops

Without a doubt, unbundled local loops are an essential input to the provision of DSL services. The Commission and Commissioners have all appropriately recognized that unbundled loops, conditioned for digital services, must be available on a nationwide basis as part of FCC Rule 51.319.

The Commission ordered the unbundling of loops conditioned to support xDSL services in the *First Local Competition Order*. As described by Covad in its Comments in the *Advanced Wireline Services* proceeding, ILEC compliance with that mandate was spotty at best. Time and time again, Covad has been presented with arguments or rejections of its requests for xDSL-conditioned loops by ILECs bearing multiple excuses—"we don't know what that is;" "we're concerned about spectral interference;" "we don't provide that over long loops;" "there are no facilities to support your request"; "providing that one loop will cost you over \$2000, because I have to do some 'special construction.""

The time for excuses is over. It is time that the Commission establish *once and* for all that ILECs as common carriers must provide unbundled access to xDSL-conditioned loops throughout their service territories. Every end-user that wants competitive broadband service over common carrier facilities should be able to receive that service—without hearing monopoly excuses and evasion.

1. Unbundled Loops Clearly Meet the UNE-Identification Test

Applying the factors outlined by Covad above clearly demonstrate the need for a national unbundled loop rule.

The Necessary and Impair Considerations. Quite simply, for the provision of xDSL services, there are no sufficient alternatives to the local loop, let alone a competitive wholesale market of "reasonable substitutes" or "seamless interchangeable substitutes", the necessary and impair standard proposed by Covad in Section II.A above.

Denying CLECs access to even one unbundled digital loop simply makes it impossible for that CLEC to provide a broadband service utilizing xDSL technology. A CLEC seeking to provide xDSL services on a national basis would, by definition, be unable to provide its service if access to those loops is not universally available. That CLEC also would be unable to provide xDSL to a particular end-user over that user's particular loop if the ILEC refuses to make that loop xDSL-compatible at a forward-looking (TELRIC) price.

Covad is not aware of *any* company that has even tried to "overbuild" the ILEC copper loop plant with similar copper loop infrastructure on such a scale to replicate the ILEC's economies of scale, scope, density and connectivity. 60 ILECs may attempt to

Covad focuses these comments upon the "impair" standard, as it is not aware of any ILEC that has argued that unbundling loops would involve any proprietary aspect. Covad reserves the right to make comments on the applicability of the "necessary" and "proprietary" terms in the event ILECs do raise such an argument.

Local loop/outside plant construction and maintenance demonstrate classic scale economies—it is less expensive per line to roll and maintain a cable comprised of multiple binder groups than it is to string one copper loop. In areas where local topology makes trenching particularly expensive (for example, the presence lava caps), these economies of scale and density may be even larger. Local loop outside plant also possess significant economies of density. It is axiomatic that it is less expensive to wire areas with large population densities than areas with lower densities.

These scale and density economies are possessed by the incumbent LEC are substantially greater than those possessed by CLECs that lay fiber, coax or copper. CLECs who wish to pull their own fiber or copper loops face well-recognized and tremendous "start-up" costs that present significant economic

argue that the presence of fiber rings, broadband wireless, or upgraded cable plant provide alternative "broadband" infrastructure, but those infrastructures are (a) not substitutes for xDSL access services, which require copper outside plant; and (b) are not nearly as ubiquitous as ILEC copper plant infrastructure. The difference between the economies ILECs enjoy and CLEC end-to-end network is clearly demonstrated by CLEC penetration. A recent report states that CLECs only serve 104,097 buildings on their own exclusive networks of fiber, broadband wireless, or hybrid fiber-coax.⁶¹

Certainly, the availability of broadband infrastructure must be determined from the perspective of the individual end-user that wants to obtain competitive xDSL services. At present, there is not only no actual, competitive, wholesale market for substitutes to ILEC outside copper loop plant. Denial of access more than satisfies the standard proposed by Covad in Section II.A. Therefore, a national rule ordering the unbundling of loops conditioned for xDSL services is clearly warranted.

National Loop Rules will Facilitate Rapid Entry and Will Promote Availability of Competitive Broadband Services to All Americans. A rule ordering national unbundling—to all locations, not just those privileged neighborhoods the ILEC "selects" to receive DSL service—would greatly promote broadband deployment to all Americans. A rule requiring universal availability of xDSL-conditioned loops would spur data CLECs to deploy services in residential and rural markets throughout the country.

barriers to entry—e.g., high construction costs, city franchise/permit process, even perhaps the cost and delay of an FCC preemption proceeding under Section 253. Although a CLEC might eventually be able to achieve some of the economies of density and scale in downtown metropolitan areas, those economies are not as great as those enjoyed by the ILEC—who have decades of a "head-start" often under monopoly conditions that precipitated access to public assets at considerably less than full cost.

¹⁹⁹⁹ Annual CLEC Report, Ch. 6, Table 10. This table includes buildings served by fiber CLECs (MCI Worldcom, NEXTLINK, and e.spire), broadband wireless providers (WinStar, Teligent), and cable providers (RCN, Cox).

It is fundamentally misguided to think that xDSL deployment by CLECs will focus upon major metropolitan areas. Covad will provide xDSL services in places like Santa Rosa, CA, Bel Aire, Maryland, the far eastern portions of Long Island, New Hampshire, and West Virginia. Other data CLECs are also deploying xDSL service in smaller markets. For example, Dakota Services, Inc. is offering its RaDSL, SDSL, and IDSL services in dozens of Midwestern towns, including Viborg, South Dakota, Waukesha, Wisconsin, and Laverne, Minnesota. Vitts Corporation provides ADSL and IDSL services in eight New Hampshire cities.

Covad and its data CLEC colleagues would be deploying further if it were not for ILEC intransigence. ⁶³ These network build-outs were all predicated upon the FCC's *First Local Competition Order* that ordered ILECs to unbundle xDSL-conditioned loops. The Commission can fuel this rapid expansion even further by implementing a "no excuses" principle of universal availability of unbundled xDSL-conditioned loops to *all* Americans.

Requiring that xDSL-conditioned loops be available to every business and household requires the Commission to ensure that competitors have the ability to deploy advanced services over those loops of the customer's choosing—even if the ILEC has decided not to provide advanced services in that same neighborhood.

1999 Annual CLEC Report, Ch. 9, "The DSL Market: Market Overview and Provider Profiles."

For example, Bell Atlantic has taken a unique approach to unbundling xDSL-compatible loops—BA will make those loops available *only when* it seeks to provide its ADSL retail service to end users. The end result is plainly anticompetitive—CLEC expansion plans are essentially held hostage until BA is "ready" with its own competing service.

2. Unbundled Loop Rules

Attachment 1 contains Covad's proposed universal DSL-conditioned loop and subloop unbundling rule, 47 C.F.R. § 51.319(a)-(b). These rules accomplish several key objectives:

- Ensure universal availability of unbundled xDSL-conditioned loops to *all* customers served by a particular wire center.
- Provide a menu of solutions on how to deliver xDSL services over loops served by remote terminal (RT) or digital loop carrier (DLC) systems.
- Establish "loop-is-a-loop" pricing principles.

Each of these points will be addressed in turn.

a. Universal Availability of Conditioned Loops

Covad's proposed rules recognize that ILEC outside plant possesses great potential for advanced services that the ILECs—due to a lack of competition—have yet to unleash. Unless CLECs are given the ability to unleash the potential of that outside plant, ILECs will continue to lack the incentive to do it themselves.⁶⁴ If existing outside loop plant has the "capability" of supporting a high-bandwidth digital service that a

The picture that emerges is of a group of powerful but slow-moving firms endeavoring to perpetuate their monopoly power (e.g. via lobbying, mergers with each other, litigation, and cooperative behavior), their current industry environment, and their incumbent management. The LECs have a poor record in innovation, R&D, the standardization and deployment of new technologies, investment in network modernization, delivery of price-performance improvements to customers, customer service, management of open systems architectures, success in real competition, and even in internal use of their own technologies and services. Perhaps most seriously, the price/performance of LEC services, including both digitally implemented voice services and data services such as ISDN and T1, has improved little and sometimes even deteriorated over the past decade. This is an astonishing situation given that most of the underlying technologies for these services improve 40%-60% per year.

See Charles H. Ferguson,, *The Internet, Economic Growth, and Telecommunications Policy* (1997) http://www-eecs.mit.edu/people/ferguson. In this paper, Ferguson summarizes his findings about ILECs:

CLEC wishes to provide—even if the incumbent LEC has for some reason chosen not to take full advantage of that capability—it is fully appropriate and, indeed, even necessary for the Commission to establish national rules requiring that such capability be unbundled. ⁶⁵

Despite the Commission's original mandate, actual availability of DSL loops varies considerably nationwide. As documented by several carriers in the *Advanced Wireline Services* docket, many ILECs do not generally make available loops certified to support DSL signals, despite current federal law requiring that availability. ⁶⁶

Many ILECs have become very picky in how they unbundle loops—unless the FCC rule is crystal clear and the CLEC has a desire and the will to enforce the rule, the ILEC will evade its obligations. Therefore, in order to encourage deployment of advanced services to all Americans, the Commission should ensure that loops certified to support innovative DSL technologies be immediately and readily available, independent of ILEC DSL deployment plans.⁶⁷

Id. at 46.

Section 3(29) of the Act defines a network element to include the "capabilities" of a network facility.

SBC and Bell Atlantic show no signs of budging on this issue, given their outstanding petitions for reconsideration of the Commission's *First Advanced Wireline Services Order*.

Not only must digital ready loops be available, all competitors must have identical access to information relating to their physical and electronic characteristics as well as verification (testing) systems.

b. Unbundling xDSL Loops over Remote Terminals

The absence of ILEC implementation of a universal DSL-conditioned loop rule has presented considerable issues if a customer's loop passes through a remote terminal/digital loop carrier ("RT" or "DLC") device. Currently, Covad has two options when faced with an order from a customer living in an area served by an DLC system: (1) obtain a twisted pair work around from the ILEC (often at considerable additional cost, if the ILEC even agrees to do it), ⁶⁸ or (2) should the DLC support ISDN, pay the ILEC to install an ISDN-compatible line card in the remote terminal that supports IDSL (ISDN DSL) service, which has a maximum speed of 144 kbps. Not every ILEC provides Covad either or both of these solutions.

In their own deployment of ADSL services, ILECs are confronting these technical challenges and are working on technical solutions. U S WEST is currently deploying DSLAMs at its DLC terminals, by placing that equipment "in the field adjacent to metal cabinets that house DLCs." Bell Atlantic and GTE are also working on solutions for their own ADSL services.

The key issue is whether the Commission will draft its loop rule in a way that gives CLECs the ability to take advantage of the solutions being developed or deployed by the ILECs, or whether the Commission will sit back and let an entire class of customers remain "unreachable" by competitive xDSL providers. Quite simply, ILECs should not be permitted to deploy electronics in their loop plant that will render those

In ¶ 170 of the First Advanced Wireline Services NPRM, the Commission correctly observed that this work-around would impact available bandwidth.

loops "unbundleable" for competitive xDSL providers. ⁷⁰ Covad strongly believes that the purpose of Section 706 of the Act requires the Commission to address this issue head-on.

Solutions to this issue exist, they just have not been fully implemented by the ILECs. Two stand out in particular, Covad believes that the CLEC should have its choice of methods.

First, next generation RT/DLC systems can be designed or re-engineered to permit ILECs and CLECs to place DSLAMs of their choosing in a separate or adjacent RT or on top of the original RT. Under this scenario, the copper wire from the customer premises to the RT would be unbundled and priced as a subloop element. In the event that CLECs are afforded this option, the CLEC should also be given the opportunity to order unbundled local transport from the RT back to the CLEC's collocation node at the serving wire center, so as to complete the connection circuit. Provision of this transport—like any other form of unbundled local transport—would included multiplexing/de-multiplexing at the central office so as to deliver the signal to the CLEC's collocation node.

In this proceeding, the Commission needs to restate this fundamental principle, to pound the point into the ILECs that did not understand it the first time around.

U S WEST, "U S WEST Unveils Technology Enhancements that Nearly Double Number of Customers who can Receive its Lightening-fast ADSL Internet Service," Oct. 28, 1998, http://www.uswest.com/news/102898.html.

In the *First Local Competition Order* at ¶ 383, the Commission clearly stated: If we did not require incumbent LECs to unbundle IDLC-delivered loops, end users served by such technologies would not have the same choice of competing providers as end users served by other loop types. Further, such an exception would encourage incumbent LECs to 'hide' loops from competitors through the use of IDLC technology.

Southwestern Bell Telephone Company has taken the strange position in an interconnection arbitration with Covad and Rhythms that although it would agree to provide CLECs with subloop access at

The second solution would be for the ILEC to deploy next-generation RTs and DSLAMs at those RTs that accept several different types of suitable digital line cards. The first step in this process would be to require ILECs to deploy RT or DLC devices that meet Telcordia (Bellcore) standards and requirements. In addition, the Commission should define the local loop element in a manner that gives the CLEC the option to have the ILEC install a suitable digital line card of the CLEC's choosing at a remote terminal and obtain de-multiplexing capability at the relevant central office. The process of installing a suitable line card at a remote terminal is *precisely* the sort of work that ILECs perform at those terminals *every day* in providing ISDN, analog or even T-1/HDSL services. Simply applying this principle to next-generation DLCs and DSL line cards of the CLEC's choosing is, in Covad's opinion, the swiftest means of ensuring broadband deployment to these neighborhoods.

This menu of unbundling solutions will give CLECs the ability to insert the appropriate level of intelligence into the network demanded by their customers. A menu approach to unbundling will, in the end, serve to limit CLECs' dependence upon the technologies that ILECs choose (or do not choose) to place in the network.

c. The National Loop-is-a-Loop Pricing Principle

Policy makers at all levels must realize that the national variance of this essential input is, in and of itself, a deterrent to the speedy and ubiquitous competitive introduction of advanced services. State-by-state differential loop pricing policies have had the effect of impeding interstate commerce while simultaneously discriminating among residents of different states.

the remote terminal, it would not provide transport from that terminal to the central office on an unbundled basis.

In many states, pricing of "DSL" or "Digital" or "Premium" loops has required end-users to pay a premium above the cost of "analog" loops. In many cases, the costs for a digitally-conditioned loop are twice the cost of an analog loop.

There are several significant problems with these disparate pricing regimes. First, these differential pricing rules are generally attempts by incumbent LECs to sneak "historic" cost elements into the forward-looking TELRIC methodology. Second, these differential pricing rules are blatantly discriminatory—they make distinctions between the price CLECs pay for the element on the sole basis of the services (data) that Covad provides over this element. As a result, these pricing rules constitute a form of cross-subsidy between digital loop rates and analog loop rates, which is not permitted under the Commission's pricing rules.

Third, and most importantly, differential pricing rules are not accurate reflections of the most-efficient current and foreseeable technology required by TELRIC. Indeed, in a true forward-looking network, outside plant would be constructed to support a mixture of analog and digital services.

Attachment 2 to these comments is a recent decision by the Michigan Public Service Commission, which is a clear and cogent discussion about how a true forward-looking cost analysis to the pricing of unbundled loops.⁷³ The Michigan Commission ruled that, in short, conditioning loops for analog or digital services are pigs of the same

The overwhelming majority of loops, approximately 75% on a national (but not regional) basis, are less than 18,000 feet in length, are simple, unaugmented ("nonloaded") twisted pairs of AWG 19, 22, 24, and/or 26 copper wire, and can carry analog transmissions as well as digital signals.

In the matter of the complaint of BRE Communications, L.L.C., d/b/a Phone Michigan, against Ameritech Michigan for violations of the Michigan Telecommunications Act, Case No. U-11735, Opinion and Order (Mich. P.S.C. Feb. 9, 1999) (Attachment 2).

litter, and that Ameritech's imposition of special construction charges for digital loops was inconsistent with a true forward-looking pricing methodology.

The Commission should make the Michigan decision a national pricing principle for unbundled DSL-compatible loops. There should not be a "DSL tax" placed upon a CLEC that wishes to use ILEC outside plant for competitive xDSL services. Covad recommends the Michigan decision as a model example for this Commission.

d. Installation Intervals

In addition, the Commission's loop rule should contain uniform installation intervals. To date, ILEC performance in providing unbundled loops to CLECs like Covad has been abysmal.⁷⁴ Covad believes that conditioned loops can be provided by the ILEC within five business days, and the ILEC should face certain, swift, and substantial performance penalties if it misses that interval.

B. Dedicated Interoffice Transport

Incumbent LEC interoffice transport networks are just as ubiquitous as local loops. These networks—constructed with rights-of-way and oftentimes eminent domain authority granted during the period of monopoly status—connect *every* ILEC central office or serving wire center to one another in order to support telecommunications services.

It is hard to overstate the importance of this ubiquity and the competitive advantage that these ubiquitous interoffice transport networks give the incumbent LEC. The ability to connect *any* end user to *any other point* in the local network is a service that only incumbent LECs can provide—and it is dedicated interoffice transport that

⁷⁴ See Attachment 4, Affidavit of Mike Clancy.

makes this service available. Those economies of scale and connectivity derive solely from the ILECs' incumbent status.

Data CLECs like Covad make substantial use of ILEC dedicated interoffice transport facilities. Attachment 3 is a joint affidavit of Mark Shipley, Covad Manager of Transport Services, and David Rauschenberg, Covad Senior Network Engineer. The Shipley/Rauschenberg Affidavit describes how Covad utilizes interoffice transport in designing and constructing xDSL networks. In a typical market build, Covad will collocate in several dozen central offices, and Covad needs to connect those offices to Covad "hubs" with DS3 transport. Each market might have two to three such hubs.

For purposes of this proceeding, Shipley/Rauschenberg studied the transport architecture and available alternatives in four regional Covad networks—San Francisco Bay Area, Chicago, New York Tri-State, and Washington DC. These four regions are commonly understood as markets with more fiber CLEC participants than other Covad markets. The results of their study is very significant—Covad is highly dependent on ILEC dedicated transport in those markets for well over 83% of Covad's demand for interoffice transport. In other markets with less fiber CLEC presence, Covad is even more dependent upon unbundled dedicated transport.

Another point raised by Shipley and Rauschenberg is that Covad's blanket collocation entry strategy will make it *ever-increasingly dependent* upon ILEC transport. The simple fact is that the physical collocation process—however bumbling the ILECs

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Covad finds that it often becomes one of the ILEC's top transport "customers" in each metropolitan area it builds out in.

Attachment 3, Affidavit of Mark Shipley and David Rauschenberg, May 24, 1999 at $\P\P$ 14-21, Table 1.

may make it—occurs much faster than CLEC fiber networks are built.⁷⁷ As Covad collocates in more residential and rural areas, its dependence on dedicated ILEC transport will grow over time.

1. The Necessary and Impair Considerations

Covad strongly believes that there are not adequate alternative suppliers (under both the "necessary" and "impair" tests) to meet its interoffice dedicated transport needs. Covad requires interoffice transport to provide *each* of the dozens of offices it has collocated equipment with a dedicated DS3 (45 Mbps) connection to the nearest Covad "hub". Covad's dependence upon the ILEC interoffice transport network stem from one primary fact—Covad's demand for interoffice transport is inherently "point-to-point." A non-ILEC alternative supplier that cannot provide that particular point-to-point connection is irrelevant to Covad.

Even in Major Cities, Point-to-Point Transport Substitutes are Rarely Available.

Although there has been growth in fiber CLEC deployment, that deployment is far from "catching up" to Covad's blanket collocation strategy, and may never catch up, in fact. Covad typically collocates in dozens, many times over 100 offices in a metropolitan area. Fiber CLECs may establish collocation nodes in 6-12 of those office.

The Shipley/Rauschenberg Affidavit make it abundantly clear that for nearly 84% of Covad's demand for particular point-to-point interoffice circuits, it has no alternative but the ILEC interoffice network.⁷⁸

These results are not surprising. While fiber CLECs have deployed fiber rings in metropolitan areas and sell circuits on those rings to companies like Covad, those fiber

⁷⁷ *Id.* at ¶ 28.

⁷⁸ *Id.* at Table 1.

rings are designed to connect customer premises with the fiber CLEC's hub or switch.

As a result, fiber CLEC networks are *not* optimized for and designed to provide interoffice transport—connections between ILEC central offices where CLECs have collocated equipment.⁷⁹

This different engineering model has real world consequences for Covad. CLEC fiber termination facilities in ILEC central offices are not nearly as ubiquitous as the ILEC interoffice network. In the four metropolitan areas studied by Shipley and Rauchenberg, Covad has a choice of multiple fiber CLECs for interoffice transport in less than 7% of its point-to-point interoffice links. Thus, for the vast majority of point-to-point (CO to hub) routes that Covad and other data CLECs require, there is *no* alternative to the ILEC interoffice network. Unbundled access is clearly necessary.

Supply Elasticity: Potential Lack of Fiber CLEC Capacity. Even where alternatives may be available on a particular route, the Commission must recognize that fiber ring capacity is not unlimited, especially at the DS3 and OCx levels that Covad requires for dedicated interoffice transport. Therefore, even if a fiber CLEC is theoretically capable of providing a particular point-to-point link, there may not be sufficient capacity on that CLEC fiber ring to support Covad's demand. ⁸⁰ ILECs seeking to remove dedicated transport from the list of elements should be prepared to prove that sufficient fiber CLEC capacity exists to support *all* transport services currently being provided by that ILEC.

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⁷⁹ *Id.* at ¶ 11.

Id. at ¶ 27. Indeed, one observer recently noted that "[t]raditional SONET-ring architecture [deployed by CLECs] faces severe scalability limitations as a long-term transport solution for data." 1999 Annual CLEC report, Ch. 9 at 7; see also Harris Long Distance Affidavit at ¶ 75 (fiber by itself is not "capacity, per se").

Supply Elasticity: Barriers to Entry. In Section III.A above, Covad described the substantial barriers to entry that fiber CLECs face in building SONET rings—the high initial capital costs, the city and municipal permitting process, the ILEC interconnection process, etc. These are serious and substantial barriers to entry that are commonly recognized. As a result, while fiber CLECs make strides every day, they are still not even remotely close to the ubiquity of the ILEC network—amply demonstrated by the results of the Shipley/Rauchenberg study.

Price and Cost Differentials. Some ILECs may argue that their access service tariffs are an "alternative" to unbundled dedicated transport between these central offices. Unfortunately, the price differential between ILEC special access service tariffs and unbundled dedicated transport are so extraordinary that it is not possible to consider these services to be an alternative source of supply. Indeed, the fact that ILEC special access service tariffs are so high demonstrates vividly the lack of competition in these markets for so many point-to-point routes.

Shipley and Rauschenberg have compiled a table comparing ILEC UNE dedicated transport rates with ILEC special access rates in four regions. The results showed some marked price differentials. For example, a typical Bell Atlantic DS3 access service in New York City would cost Covad \$3085.02 per month—compared to \$2332.22 if that interoffice facility were acquired as an unbundled element. In Miami, the price increase of BellSouth's access tariff and comparable DS3 UNE transport is a shocking 353% (\$5144/mth for special access DS3; \$1457/mth for DS3 unbundled transport). 82

81 Attachment 3 at ¶¶ 21-25, Table 2.

⁸² Id. at Table 2.

The price differentials can be extraordinary and are clear *indicia* that ILECs are not restrained by sufficient transport competition in these markets. Extreme price differences can be explained by the fact that ILEC special access tariffs are justified under a different standard than UNE rates. Special access tariffs are based upon the traditional Title II "just, reasonable, and non-discriminatory" pricing standard. As a result, an ILEC need only "justify" its terms for the special access tariffs it files before the FCC.

In contrast, the pricing of UNEs is based upon Section 252, forward-looking cost plus a reasonable profit standard.⁸³ The Commission's pricing rules establish a forward-looking pricing methodology for these network elements. It is well-documented (primarily and repeatedly by IXCs) that the forward-looking cost of these access services is considerably *below* traditional ILEC access charge pricing.

Given the number of interoffice transport links that Covad buys, if forced to purchase interoffice transport pursuant to the ILEC tariff rather than through unbundling, Covad would face an immediate, sustainable, and severe increase in interoffice transport costs in several markets, up to 353%.

Other cost considerations related to unbundled transport must also be kept in mind. For instance, since Covad has to acquire collocation space and loops from the ILEC, it has already incurred "account management" costs with ILECs—costs that would have to be incurred once again if the Commission permits ILECs to force Covad to acquire interoffice transport from other sources.⁸⁴

2. Other Considerations

⁸³ 47 U.S.C. § 252(d)(2).

⁸⁴ *Id.* at ¶ 26.

Like the national availability of unbundled conditioned loops, national availability of unbundled dedicated transport (at DS3 and OCx levels) would facilitate the rapid development of competition and would promote the deployment of competitive broadband services nationwide. Indeed, Covad stipulates .that its need for high-capacity interoffice circuits in places like Santa Rosa, California and Waldorf, Maryland will actually promote the deployment of such high-capacity connections by the ILEC to those towns. To the extent that Covad or another data CLEC purchase unbundled DS3s from the ILEC on an unbundled basis, and if the ILEC needs to expand its capacity to the office to meet this order, it may be more efficient for the ILEC to take advantage of this opportunity to install more capacity to that office, perhaps at an OCx level, that the ILEC may not have installed but-for the DS3 orders from data CLECs. The result would be that the customers served by the office would have high-capacity services available to them that they otherwise may have been denied.

* * *

Any way you slice it, the need for unbundled access to ILEC interoffice transport facilities is clear. Fiber CLECs, while growing, have not deployed networks designed to provide fiber-less CLECs like Covad with interoffice transport and therefore can only supply a small fraction of the number of point-to-point links needed. The capacity of those rival fiber networks to support all supply currently provided by the ILEC has not been established. The shocking differences between ILEC special access tariffs and unbundled dedicated transport pricing essentially demonstrates that ILECs possess market power in this market—when permitted by law, they will sharply increase price and restrict supply. It would be wholly inconsistent with the public interest for the Commission to determine that an actual, competitive wholesale market for these services is present. Other public interest factors, including the need for rapid entry and broadband deployment, also weigh in favor of a national rule ordering unbundled dedicated transport at DS1, DS3 and OCx levels.

C. DS3 Customer Links

In its September, 1998 *Advanced Wireline Services* Comments, Covad proposed that the Commission require ILECs to provide "DS3 Links" between a customer premises and the serving wire center. Covad re-states that proposal here today. *See* Attachment 1, Section 51.319(h).

DS3 links are dedicated, point-to-point digital circuits that provided bandwidth of 45 Mbps. Incumbent LECs commonly provide DS3 links to their own advanced services customers, including ISPs and other end-users of high-bandwidth services. In particular, an ISP might order a DS3 link between its premises and the point-of-presence of another telecommunications carrier or major Internet POP. As the Internet grows and expands,

the local bandwidth needs for ISPs and corporations will cause ever-increasing demand for DS3 circuits. 85

Provision of a DS3 Link on an unbundled basis is clearly technically feasible.

Indeed, Bell Atlantic provides this unbundled network element in the State of New York to CLECs—but it does not make this network element available on an unbundled basis to CLECs in any other state in the Bell Atlantic service territory. Unbundling these links does not involve any proprietary or technical feasibility issue—rather, the only reason that not all ILECs provide these DS3 links on an unbundled basis is because regulators have not required them to do so.⁸⁶

Like unbundled local loops and transport, DS3 Links meet the unbundled network elements meets the standards of Section 251(d)(2) of the Act.

1. Necessary and Impair Considerations

Even more so than interoffice transport, for the vast majority of Covad's point-to-point DS3 customer link needs, alternative substitutes for DS3 links are few and far between. With regard to alternative sources of supply, the availability of DS3 Links from fiber CLECs is limited even more severely than interoffice transport—because the only substitute is a fiber CLEC "Type 1" (on-net) DS3 circuit from a particular customer premises to the Covad network. ⁸⁷ As stated above, an estimated 104,097 buildings nationwide are served by fiber CLECs, broadband wireless, and HFC architectures. ⁸⁸ For the millions of other buildings in the country, the ILEC is the only option to connect those customers to Covad's DSL network with a DS3 connection.

For a description of the difference between Type 1 and Type 2 transport, see Attachment 3 at ¶ 12.

Attachment 3 at ¶ 31.

¹d. at ¶ 32.

Like interoffice transport, the difference between service tariffs and unbundled element pricing is substantial—in large part because of the different pricing standards required by Congress. Section 201 only requires that access services be priced in a just, reasonable and nondiscriminatory manner, while Section 251 and Commission rules require that prices for UNEs be based on forward-looking costs plus a "reasonable profit." Like interoffice transport, these two different pricing methodologies result in remarkably different prices for DS3 Links.⁸⁹

2. Other Considerations

Availability of DS3 Links would substantially promote entry nationwide. Under current circumstances, the pricing and availability of DS3 Links varies so widely that Covad has to make an educated guess about the cost of a DS3 customer link during the sales process. Customers—especially ISPs with multiple POPs in several cities—do not understand the large and very substantial price and availability differences there might be between a DS3 Link in New York, Washington DC, Atlanta, and Los Angeles. As a result, clear and certain national unbundled availability and national pricing rules would promote competitive broadband entry nationwide.

Indeed, the availability of DS3 customer links is a significant competitive issue for xDSL services. Competition between data CLECs and ILECs in the xDSL arena currently focuses on competition for orders from Internet Service Providers ("ISPs"). 90 In particular, a carrier cannot provide xDSL service to an ISP's customers until that carrier has hooked up that ISP to the carrier's high-speed backbone network with a high-

⁸⁸ 1999 Annual CLEC Report, Ch. 6, Table 10.

Attachment 3 at ¶ 34.

⁹⁰ Attachment 3 at ¶ 35.

capacity connection, typically a DS3. In their own ADSL roll-out, ILECs bundle the sale of DS3 customer links to end-user ADSL circuits, taking full advantage of the economies of scale, scope and density that their ubiquitous network provides. If Covad and other data CLECs cannot obtain DS3 links on comparable economies of scale, scope and density, these new entrants will be at a competitive disadvantage.

D. Availability of Related OSS

Whenever the Commission orders the availability of a particular element, CLECs of course need actual, nondiscriminatory access to the OSS needed to pre-order, order, install, and repair/maintain the particular element.⁹¹

In defining OSS element(s), the Commission should pay particular attention to OSS information relevant to the provision of advanced, xDSL services. Deployment of these services would be advanced if ILECs would provide CLECs with detailed loop information sufficient to make its own determination of what xDSL equipment and service a loop is capable of supporting. Covad is aware that ILECs have assembled such information in advance to support their own provision of ADSL services. It is essential, therefore, that Covad have efficient access to accurate electronic information about relevant operational parameters regarding ILEC constructed and maintained loop facilities.

Information relating to loop length, the presence of analog load coils, presence and number of bridge taps, and the presence and type of a DLC should be catalogued, inventoried, and made available directly to CLECs through automated OSS. The OSS

Indeed, Covad believes that rather than defining OSS as a separate element, it should be defined as an integral part of the underlying element. Covad has noticed a disturbing trend among ILECs to propose special additional monthly "charges" for OSS for particular elements which, in Covad's opinion, are nothing more than attempts to increase in underlying UNE prices.

ultimately needs to take into account spectral interference and binder group management aspects that are the subject of the *Advanced Wireline Services* proceeding.

This loop information needs to be available even if the ILEC has—for whatever reason—chosen not to provide xDSL services out of a particular central office. 92

In addition, ILECs should be required to utilize *the same* OSS to support the provision of their own xDSL services. When it comes to OSS, Covad strongly believes that a separate CLEC OSS will never be equal.

IV. CONCLUSION

The Commission has an opportunity in this proceeding to take advantage of three years experience with unbundling and write national unbundled element rules that clearly list ILEC obligations, leave no wiggle room, and promote rapid competitive entry into telecommunications markets and the competitive deployment of broadband services to all Americans.

As described above, Bell Atlantic does not "pre-qualify" loops for xDSL in offices where it does not provide retail ADSL services. This is a discriminatory application of ILEC resources.

Covad's proposed substantive standard and procedural rules for identifying

unbundled elements that must be made available on a national basis give full effect to the

text of Section 251(d)(2) and the Supreme Court's decision in *Iowa*, while also

minimizing the potential for ILEC gamesmanship of this UNE-definition process. In

particular, ILECs should bear a strong burden in this and other proceedings to prove that

a requested elements should not be provided on an unbundled basis. Covad believes that

ILECs should bear a strong burden if they argue that any element originally ordered by

the Commission in the First Local Competition Order and subsequent proceedings, such

as the First Advanced Wireline Services Order, should no longer be available on an

unbundled basis. Therefore, while Covad has also presented strong evidence that

supports unbundling of four particular elements—loops, dedicated transport, DS3 Links,

and OSS—it reserves the right to supplement this record with further factual showings in

the future.

Respectfully submitted,

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